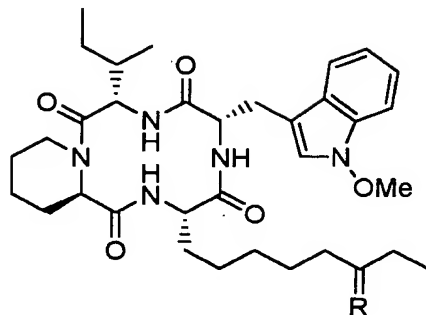


Claims

We claim:

1. A compound of the formula 1:



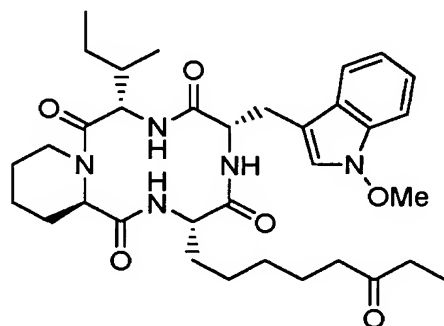
(1)

wherein

R is chosen from semicarbazone, thiosemicarbazone, hydrazone, *tert*-butylhydrazone, phenylhydrazone, 2,4-dinitrophenylhydrazone, 4-methoxyphenylhydrazone, 3-methoxyphenylhydrazone, 4-nitrophenylhydrazone, benzylhydrazone, methanesulfonylhydrazone, benzenesulfonylhydrazone, 4-methylbenzenesulfonylhydrazone, benzoylhydrazone, 4-nitrobenzoylhydrazone, carbohydrazone, benzyloxime and acetoxime.

2. The compound of claim 1, wherein R is chosen from semicarbazone, hydrazone, *tert*-butylhydrazone, carbohydrazone, benzyloxime and acetoxime.
3. A histone deacetylase inhibitor comprising a compound according to claim 1.
4. An anti-tumor composition comprising a compound according to claim 1.
5. A method for treating or preventing tumor comprising administering a therapeutically effective amount of a compound according to claim 1.

6. A method for producing a compound according to claim 1, wherein the method comprises the step of reacting apicidin (represented by formula 2):



(2)

with a hydrazine, a carbazide or an amine, in the presence of an acid or a base.

7. The method of claim 6, wherein the step of reacting apicidin with the chosen compound involves the use of methanol or ethanol as a reaction solvent.
8. The method of claim 6, wherein the base is chosen from triethylamine or pyridine.
9. The method of claim 6, wherein the acid is acetic acid.
10. The method of claim 7, wherein the base is chosen from triethylamine or pyridine.
11. The method of claim 7, wherein the acid is acetic acid.